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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/276,021 | 03/25/1999 | KHALID YOUSSEFF | 024/1 | 1550 |

7590 05/25/2006

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| EXAMINER |
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HAROLD, JEFFEREY F

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| ART UNIT | PAPER NUMBER |
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2614

DATE MAILED: 05/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------|----------------------------------|--|
| Office Action Summary | Application No. 09/276,021 | Applicant(s) YOUSSEFF, KHALID | |
| | Examiner Jefferey F. Harold | Art Unit 2614 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. ***Claims 1-3 and 5-10*** are rejected under 35 U.S.C. 102(e) as being anticipated by Park (United States Patent 6,873,704).

Regarding **claim 1**, Park discloses an apparatus for removing echo from speech signals with variable rate. In addition, Park discloses a means for implementing, at the start of a communications session over a communications line, a plurality of echo cancellers to cancel echo on the communications line, the echo cancellers each operating to cancel echoes that arrive during a predetermined bandwidth of time, the predetermined band-widths of time being non-overlapping; means for training each of the plurality of echo cancellers to produce a cancellation signal that cancels echoes arriving during the predetermined bandwidth of time associated with the echo canceller; and means for eliminating after a predetermined training period, all echo cancellers that produce a cancellation signal below a predetermined threshold, as disclosed at column 5, line 33 through column 7, line 19 and exhibited in figures 3-5.

Regarding **claim 2**, Park discloses everything claimed as applied above (see claim 1), in addition Park discloses wherein the bandwidths of time are equal in width to each other, as disclosed at column 5, lines 33-45.

Regarding **claim 4**, Park discloses everything claimed as applied above (see claim 1), in addition, Park discloses the since the echo signals may have different delay times depending upon circumstances, the number of taps in the echo canceller will be decided by the circumstances. The allotting method may be $1/N$ wherein N is the number filters, as disclosed at column 5, lines 26-35. Thus Park inherently discloses a graphical user interface for allowing a user to alter the predetermined threshold.

Regarding **claims 5, 6, 8, 9, and 11**, they are interpreted and thus rejected for the reasons set forth above in the rejection of claims 1, 2 and 4.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. ***Claims 3, 7 and 10*** are rejected under 35 U.S.C. 103(a) as being unpatentable over Park in view of well known prior art Gritton.

Regarding **claim 3**, Park discloses everything claimed, as applied above, (see claim 1), in addition Park discloses non-overlapping bandwidths, however, Park fails to wherein each is each approximately 16 milliseconds apart. However, the examiner

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maintains that it was well known in the art to provide wherein each is each approximately 16 milliseconds apart, as taught by Gritton.

In addition, Gritton discloses wherein the adaptive echo cancellers are modeled at 16ms intervals, as disclosed at column 3, lines 28-55.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Park by specifically providing wherein each is each approximately 16 milliseconds apart, as taught by Gritton, for the purpose of providing each of the adaptive cancellers is connected in a prescribed sequence in a so-called preferred position in the tandem connection.

Regarding **claims 7 and 10**, it is interpreted and thus rejected for the reasons set forth above in the rejection of claim 3.

Response to Arguments

3. Applicant's arguments with respect to claims 1-11 have been considered but are moot in view of the new ground(s) of rejection.

Citation of Pertinent Art

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Flanagan et al. (United States Patent 5,815,496), discloses a cascade echo canceller arrangement.

Trump (United States Patent 5,815,568), discloses disabling tone detector for network echo cancellers.

Dunn et al. (United States Patent 6,580,793), discloses a method and apparatus for echo cancellation with self-deactivation.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jefferey F. Harold whose telephone number is 571-272-7519. The examiner can normally be reached on Monday - Friday 9 am - 5:30 pm.

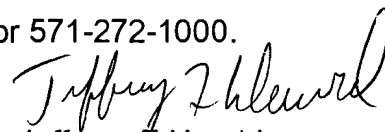
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wing F. Chan can be reached on 571-272-7493. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



JFH
May 23, 2006



Jefferey F Harold
Primary Examiner
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